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CENTRAL INTELLIGENCE AGENCY

REPORT NO. [redacted]

INFORMATION REPORT

CD NO.

COUNTRY	Germany (Russian Zone)	DATE DISTR.	21 May 1951
SUBJECT	Research at the Carl Zeiss Firm in Jena [redacted]	NO. OF PAGES	6
PLACE ACQUIRED	[redacted]	NO. OF ENCLS. (LISTED BELOW)	
DATE OF INFO.		SUPPLEMENT TO REPORT NO.	

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1. The VEB Carl Zeiss, Jena, is a member of the VVB(Z) (Vereinigung Volkseigener Betriebe (Zonal)) Optik. The Zeiss-Ikon firm in Dresden, which was formerly affiliated with the VVB Mechanik, has been a member of the VVB Optik since 1 January 1951. Dr. Hugo Schrade, head of the VVB Optik, is also director of Zeiss, Jena. His assistants are Victor Sandmann, Commercial Director, and Otto Schieck, Cultural Director.

2. The plant is divided into three departments:

   a. Production (Fertigung) — headed by Director Schrade.

   b. Construction — headed by Dipl. Ing. Bischoff.

   c. Science — headed by Geheimrat Hans Harting.

   The Science Department carries out research in some twenty offices which are divided into three main categories: laboratories, testing offices (Prüfstellen), and computing offices (Rechnerbüros).

   Scope of Research at Zeiss, Jena:

3. Research at Zeiss, Jena, consists primarily in developing and improving Zeiss optical products. Postwar interests, however, have extended into what, for Zeiss, are new directions. Having fairly successfully recovered from the effects of the dismantling carried out by the Russians during the immediate postwar period, the factory had, as of December 1950, resumed production and employed a staff of about 12,000. Microscopes, eyeglasses, camera lenses, field glasses, etc., are again being mass-produced. Special equipment, such as epidiascopes, refractometers, mirror telescopes, mirror microscopes and photometers, is being manufactured in small quantities. Some research is being done in the fields of striae devices, photocells, ultrasonics, infrared devices and synthetic crystals.

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Soviet and DDR Influence on Activities at Zeiss, Jena

4. The Russians reportedly no longer exert a direct influence on research at Zeiss but act through the DDR as intermediary. And since all research and production plans must be reported to the DDR Planning Ministry, it may be concluded that all important results of research are made available to the Russians by the DDR. Since the DDR lacks the necessary experts to direct research successfully in a large enterprise, a state of confusion often results from directives and counter-directives. In December, however, changes were being considered in the relations between the Science Department at Zeiss and the DDR which would give the Government more efficient control over research at the plant.

5. During the period when the Russians had direct control of the Zeiss plant, i.e., prior to the establishment of the DDR, they were eagerly interested in every phase of research, even routine research necessary for mass production. They were particularly interested in the striae devices and portable sound film sets (Tonfilmkoffer), and in the production of large quantities of epidiascopes. Consequently, they were the initiators of research along those lines at Zeiss. From the summer of 1949 to the end of 1950, the plant produced and delivered to the Russians about 2,500 epidiascopes. Former production had been twenty per year. Sound film sets were delivered to the Russians by the thousands.

Head of the Scientific and Research Department at Zeiss

6. Geheimrat Hans Harting, head of the Science Department at Zeiss, Jena, is also chief of research. He is 83 years old. He began work at Zeiss in his youth, under the founder of the plant, Abbe. Harting then went to Vogtländer in Braunschweig, and later to the German Reichspatentamt. Under Hitler, he was returned to the Zeiss plant as head of scientific research and, after some years of service, retired. At war's end, he was again called to head the Science Department at Zeiss. Harting, who invented the Heliar lens, is now too old to head the Research Department in an efficient manner. Worn out and quarrelsome, he tries to keep on good terms with the ruling authorities. At first, he showed some patriotically-inspired anti-Communist feelings by cautioning researchers working under his direction against Stiftungskommissar Robert Rompe who, he said, was a Russian, not a German. He later did an about-face and is now on friendly terms with Rompe.

Research Offices and their Functions

7. Following is a list of sixteen of the main research offices, broken down according to the category to which they belong, i.e., laboratories, testing offices, or computing offices. The abbreviated designations of the offices are those used at the Zeiss plant.

a. Laboratories:

1) Messlab:

Laboratory for Measuring Devices; formerly the Physlab, Physical Laboratory. This laboratory develops such instruments as the Q24 spectrograph (in the development stage), Pulfrich photometers (now on sale), interferometers, refractometers, flame photometers (now on sale), and the spectral line of photometers (in the completed development stage). The head of this laboratory is Dr. Lukas. He is known to have been in contact with his predecessor, Dr. G. Hansen, who is now in Oberkochen, West Germany.

2) Medlab:

Medical Laboratory. This laboratory carries out research on and development of medical-optical devices ranging from improved illumination for operating tables to devices for the illuminating and projecting of openings of the human body, such as Kolposcopes and Kolpoprojectors (sic). The head of this laboratory is Dr. Buch.

3) ———

A laboratory which is engaged in the development and improvement of the technique of reducing reflection (Entspiegelung) of glass bodies used in optical devices to reduce the loss of light caused by reflection; loss has been cut 1/2 to 3/4 percent per glass-air surface. The head of this laboratory is also Dr. Buch.

4) Milab A:

Microscopic Laboratory engaged in the development of microscopes for inorganic preparations. The head of this laboratory is Dr. Gausse.

5) Milab O:

Microscopic Laboratory engaged in the development of microscopes for organic preparations. The head of this laboratory is Dr. Trapp. Dr. Gehne is engaged at both microscopic laboratories in the development of mirror microscopes (reflecting microscopes) which have a better magnifying and resolving power than the usual type of lens microscope.

6) Elmilab:

Laboratory for Electron Microscopes engaged in the development of microscopes of the electrostatic type. The head of this laboratory is a man named Schmidt.

7) Astrolab:

Laboratory for Astronomical Instruments. This laboratory is charged with the construction of a Schmidt-type reflecting telescope of 2 meters' diameter. When the mirror was originally cast, it was stored at the Schott firm and there disintegrated during the cooling-off period. Investigation revealed that the inherent oscillation (Eigenschwingung) of the mirror was approximately that of the building and that this coincidence had led to the disintegration of the mirror. Another mirror has been cast and is stored at the Schott firm for cooling. This laboratory has also built three planetaria, two of which were sold to South American countries. The third was offered to Stalin as a gift on his 70th birthday but is still stored at the Zeiss plant. Dr. Hartwig is the head of this laboratory.

8) Pholab:

Phototechnic Laboratory mainly engaged in research on and development of camera lenses. It is now engaged in the development of a camera suitable for a great number of scientific purposes. This camera is called the WIKA (Wissenschaftliche Kamera).

In 1946, after the Russians had dismantled the entire equipment of this laboratory to be used for the development of the Contax camera at Zeiss-Ikon in Dresden, Zeiss Jena was ordered to build a similar installation, which was done in 1947. The Russians then dismantled this installation and shipped it to the USSR in 1948. The head of this laboratory is a master technician, but his name is not known.

9) Ophthalmolab:

Laboratory of Ophthalmology engaged in the development of ophthalmological instruments such as eye-mirrors and eye (retina) cameras. The head of this laboratory is Dr. Notoboom.

10) Chemlab:

Chemical Laboratory. The head of this laboratory is Dr. Rebentisch.

b. Testing Offices. Research and development are also carried out in the testing offices.

1) Elprüf:

Testing Office for Electrical Devices develops and tests electrical devices and equipment for Zeiss products. It also tests such devices bought from other firms. The head of this office is Dr. Franke.

2) Liprüf:

Light Testing Office, established in 1947. The main tasks of this office are the development of intensity and uniformity of illumination and the procurement and testing of light sources. A recent development is a Xenon lamp for projection purposes, such as cinema projection, which operates on pulses of current and thereby generates more light per unit of power without decreasing the life of the lamp. The head of this office is Dr. E. Helbig.

3) Z-Prüf:

Central Testing Office. This office is responsible for the quality and accuracy of the finished Zeiss products and is headed by Dr. Otto Dabenecker who was formerly employed at Siemens-Halske.

c. Computing Offices. Research and development are also carried out in the computing offices.

1) Phorech:

Computing Office for Photography. This office is engaged mainly in the computing of camera lenses. Its head is Dr. Zoellner.

2) Mirech:

Computing Office for microscopy. Its head is Dr. Boegehold.

3) Ferech:

Computing Office for Telescopy. This office is headed by Dr. Horst Koehler.

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New Research Activities at Zeiss

8. Following are somewhat sketchy descriptions of new research projects at Zeiss:

a. Striae Devices:

At the end of 1948, the Russians ordered the Zeiss firm to produce a number of striae devices (Schlierengeräte) for delivery to the USSR. Since these devices had not heretofore been produced by the firm, a research and development laboratory was set up. Eventually, only a small number of these devices, not more than ten, were built and delivered to the Russians up to the middle of 1949. Construction was then discontinued and has not since been resumed. The Russians showed great interest in the device and its rapid delivery. They obtained all blueprints and construction drafts.

The device itself consists of a point source installed in the focal point of a parabolic mirror, thereby producing a beam of parallel light rays and projecting striae on a screen. The device as produced at Zeiss had the general outline of a tube with a diameter of 70 to 80 centimeters and an over-all length of about 10 meters. The device is reportedly needed for the study of currents in wind tunnels.

b. Ultrasonic Research:

At the end of 1949, the Zeiss firm established a laboratory for research in ultrasonics at the request of the DDR. Since the Zeiss firm had no expert in this field of research, the task was given to Professor Schuster, a specialist on medical-optical devices, who had come to Jena from either the University or the Technical College in Breslau. Despite the fact that Schuster is not, properly speaking, an expert in ultrasonic research, he is an able physicist and has tackled his problem successfully, although he works with only one or two assistants.

c. Infrared Research:

Until late December 1950, the Russians had prohibited any laboratory work at Zeiss on infrared devices. At that time, however, upon the initiative of the Russians, negotiations were opened for the establishment of a laboratory for infrared research at Zeiss. The results of these initial negotiations are not known.

d. Synthetic Crystals Research:

As a side line, Dr. Rebentisch, head of the Chemical Laboratory, is engaged in research on the generation of synthetic crystals. The purpose of this project is to produce a substitute for quartz and fluorspar which are in short supply.

e. Photocell Research:

After the dismantling of the Zeiss plant by the Russians, a small laboratory for research into and development of photocells was established. Until 1950, the main project of this laboratory was the development of alkaline and selenoid cells.

In 1950, the development of cadmium sulfide cells was added. Since all experts in this field have been taken to the USSR, the laboratory is headed by a man named Hauonstein. This project has not yet reached the industrial production level.